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ADDENDUM NO. 6

Work Plan - Removal of Asbestos and Vermiculite

at the Export Plant, Libby Asbestos Site

06 September 2000

1.0 INTRODUCTION

This addendum to the 28 July 200 Work Plan for the removal of asbestos and vermiculite at the Libby Asbestos Site is issued to amend Appendix J - Disposal Site Restoration Plan. The locations for debris and soil disposal have now been identified. This addendum addresses restoration of the two disposal areas at the mine site following completion of the Export Plant cleanup.

W.R. Grace, Inc. (Grace) plans to dispose of asbestos impacted soil, vermiculite, debris, and building abatement residue generated during decontamination of the Export Plant at the vermiculite mine. Grace currently has an access agreement with the owner of the mine and has cooperated with the regulatory agencies involved in the cleanup actions to select appropriate disposal areas. Placement of the asbestos impacted material and restoration of the disposal areas will be conducted according to the procedures specified within this plan.

The vermiculite mine is located approximately 8 miles to the north and east of the Export Plant as shown on Figure J-1. Since mining operations ceased in 1990 the mine property was reclaimed by Grace and subsequently sold to Kootenai Development Company. Previous restoration activities included regrading operations and planting of native vegetation.

2.0 REFERENCE TO OTHER PLANS

The restoration activities described in this plan are associated with work described in several other plans, as amended, including: Health and Safety Plan (Appendix B); Traffic Control Plan (Appendix E and Addendum No. 5); Dust Control Plan (Appendix F and Addendum No. 5); and Erosion Control Plan (Appendix G). Several activities specified in the plans noted will support the restoration actions as well. The Traffic Control Plan describes the route trucks will use to access the disposal areas and the operations to decontaminate those vehicles. Dust and erosion control measures will be undertaken during the disposal of the

material as described in the respective plans to alleviate dispersion of the materials via wind or water runoff.

All of the disposal activities will be closely monitored and coordinated to insure the safety of the public and contractor personnel and to minimize environmental impacts. Health and safety precautions will be emphasized throughout the disposal and restoration work. Only properly trained and qualified individuals will be assigned to the disposal and site restoration tasks. At a minimum, personnel working at the mine site will have OSHA 40-hour HAZMAT and respirator training. Access to the disposal areas will be restricted to authorized personnel.

3.0 MINE SITE RESTORATION TECHNICAL PROTOCOL

As agreed upon with the appropriate project regulatory representatives (Paul Peronard-EPA; and John Constan-Montana DEQ), two areas at the mine site have been identified for disposal of soil and debris associated with the Export Plant cleanup. The two areas are shown on Figure J-2 and noted as the "Soil Staging" area and the "Planned Debris Disposal" area. Soil excavated from the Export Plant will be staged in an area directly west of a large depression known as the Glory Hole. Cleaning debris and non-salvageable material will be placed in a depression known as the Level 12 Toe, directly west of a large mound of dirt and mined material. Photographs of the selected disposal areas are presented as Figures J-3 through J-6.

3.1 Soil Disposal and Site Restoration

Up to 16,000 cubic yards of surface soil, gravel, and road base are estimated to be removed from the Export Plant site. The soil will be transported to the mine site in tarp-covered end-dumps and placed in the soil staging area. A dozer will be operated at the soil staging area to manage deposited soil. In addition, dust suppression will be maintained throughout the soil dumping activities using water trucks and hoses.

The staged soil piles will be left in place until all of the removal activities at the Export Plant are complete and all of the debris resulting from the cleanup has been transported to the mine site for disposal. The soil piles will be monitored and moistened as necessary to minimize blowing dust.

The staged soil will be used for two purposes: 1) as final cover for the Planned Debris Disposal area; and 2) as fill for the Glory Hole. URS will place approximately 24 inches of the

soil as a final cover over the Planned Debris Disposal area. The soil will provide a base for revegetation of this area.

The remaining soil and gravel will be used to fill the Glory Hole, eliminating this depression and recontouring the area to match the surrounding grade. This recontouring activity will be completed after appropriate consultation with Montana DEQ and in accordance with the mine site permit requirements as may be amended. The area will be revegetated once filling and grading is complete.

3.2 Debris Disposal Area

Debris from the Export Plant building abatement activities and vermiculite removal will be hauled to the debris disposal area in trucks and placed in a depression on Level 12 near the toe of a small hill as shown on Figure J-2. It is anticipated that most of the debris material from the abatement will be wrapped in plastic or bagged. If necessary to control wind blown litter, periodic soil cover will be pushed over the top of the debris using a dozer operating at the top of the hill. The cover will consist of existing soil scraped by the dozer off the hill above the disposal area. Alternatively, the material will be moistened daily to control wind dispersal.

Scraping the natural material off the top of the hill above the disposal location (at the toe of the hill) will also allow URS to reduce the steep slope of the hill and recontour this area to prevent erosion and ponding of precipitation. Once all of the debris has been hauled and disposed of in this area, the area will be covered with 2 to 3 feet of additional natural material and tracked with the dozer. Soil from the soil staging area will then be brought in and a minimum 12-inch lift will be placed over the disposal area and revegetated.

3.3 Revegetation

Once the final grades have been established and the final soil cover placed, the Glory Hole and the Debris Disposal Area will be hydroseeded using a seed mixture selected in consultation with forest service personnel. The reseeded areas will be inspected weekly throughout the first growing season to ensure that adequate moisture is available for establishing germination and growth. The inspections will also be used to identify potential erosion areas if present so that they can be addressed.

3.4 Site Security

The area used for disposal of the Export Plant cleanup debris will be posted with signs indicating the areal extent of the disposal area. The signs will also indicate the nature of the

disposed material and provide a telephone number for additional information. As necessary a deed restriction will be made for the area of the debris disposal.

4.0 COMPLIANCE WITH STATE SOLID WASTE DISPOSAL REQUIREMENTS

The potentially applicable requirements for construction, operation, and closure of landfill units in Montana are provided in ARM 17.50.501 to 17.50.540. This section reviews requirements as they may potentially apply to the disposal of the soil and cleanup debris generated at the Export Plant.

4.1 Facility Classification

The waste generated during the cleanup is considered "construction and demolition waste". Asbestos is not considered to be a hazardous waste under RCRA regulations. The areas at the mine site selected for disposal of the material will not receive any other waste and will not meet the definition of a "municipal solid waste landfill" unit (MSWLF). The debris to be placed in the disposal area at the mine meets the definition of Group III wastes as defined in ARM 17.50.503. Group III wastes include:

> "wood wastes and non-water soluble solids. These wastes are characterized by their general inert nature and low potential for adverse environmental impacts. Examples include, but are not limited to, the following:
>
> - Inert solid waste such as unpainted brick, dirt, rock and concrete;
> - Clean, untreated, unglued wood materials, brush, unpainted or untreated lumber, and vehicle tires; and
> - Industrial mineral wastes which are essentially inert and non-water soluble and do not contain hazardous waste constituents."

It is anticipated that the disposal area would fall within the definition of a Class III or Class IV landfill according to ARM 17.50.504(2)(b) and (c).

4.2 Facility Standards

The selected disposal locations meet all of the standards for solid waste management facilities identified in ARM 17.50.505. Criteria specified in ARM 17.50.506 pertaining to liners and leachate collection do not apply to the mine site disposal areas since they are not a Class II landfill unit and since there is no opportunity for affecting the uppermost aquifer with the chemicals listed in Table 1 of the regulation. Since the contaminant of concern in the debris and

soils to be disposed is asbestos (non-soluble) and the disposal location is within a vermiculite mine containing extensive deposits of naturally occurring asbestos, there is minimal potential to adversely affect any existing aquifers due to disposal of the material.

4.3 Operation and Maintenance

The operation and maintenance procedures for the disposal areas will adhere to the applicable requirements for Class III landfills as specified in ARM 17.50.510 and 511. Access to the mine disposal areas will be strictly controlled. No open burning will take place and control of litter will be accomplished through frequent inspections and placement of periodic cover. Although daily cover is not required for Class III and IV landfills, Grace may provide for cover in the debris area using naturally occurring soils from nearby the disposal area if necessary to prevent debris from blowing across the site.

4.4 Closure Requirements

Closure requirements for Class III and Class IV landfills are specified in ARM 17.50.530(2) and 17.50.530(3) respectively. The requirements for closure of a Class III landfill include:

- Two feet of final cover;
- Grading and seeding to prevent erosion; and
- A deed notation.

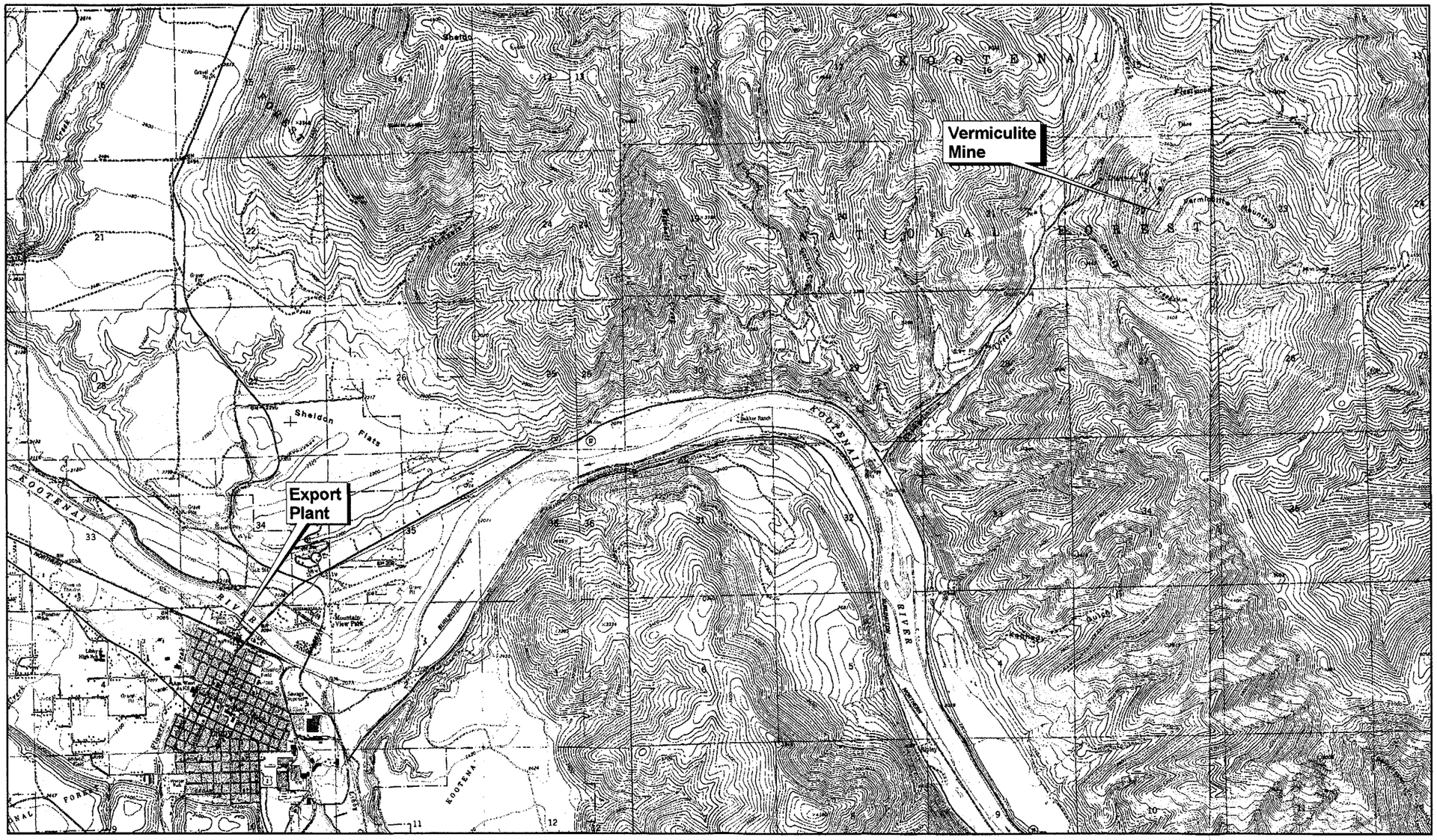
The plan for closing the waste disposal areas will include each of these requirements. Closure requirements for a Class IV landfill include the placement of a final cover designed to minimize infiltration using an 18-inch earthen layer with a permeability of 10^{-5} cm/sec or less and revegetation. Grace plans a 24-inch earthen layer as final cover, although a permeability specification is not planned. As noted previously, the waste that will be placed in the disposal area will not pose a threat to groundwater and the minimal infiltration into the disposal layer is not expected to threaten human health or the environment.

4.5 Post-Closure Care

The subchapter 17 regulations currently do not contain requirements for post closure care of Class III and IV landfills. Grace plans to conduct periodic inspections of the disposal area until the revegetation efforts are successful.

Color Map(s)

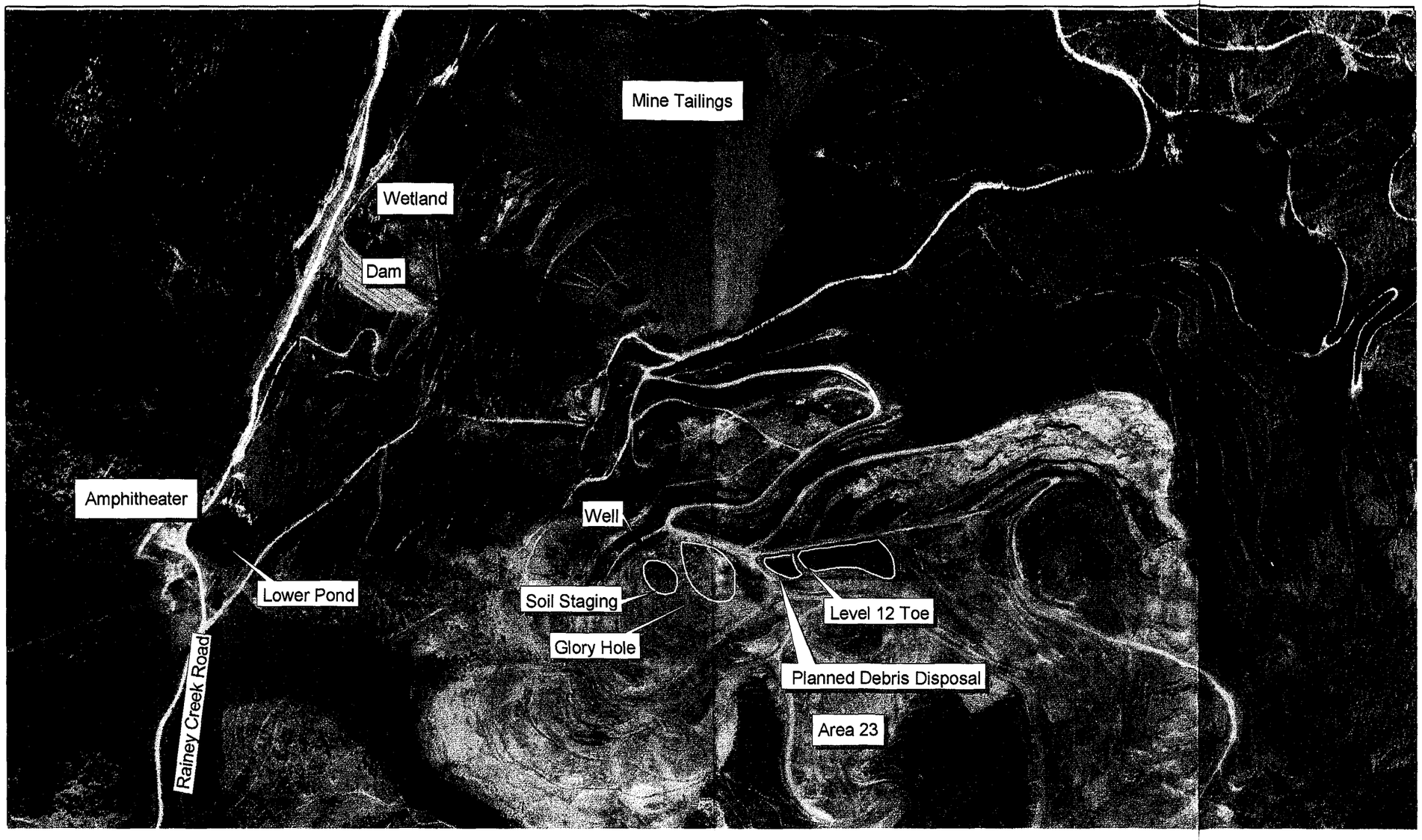
The following maps contain color that does not appear in the scanned images. To view the actual images please contact the Superfund Record Center at (303) 312-6473.



Reference: U.S. Geological Survey,
Libby and Vermiculite Mountain Quadrangles, Montana
7.5 Minute Series Topographic Maps

Figure J-1. Site Locations

FILE NAME	DATE	DR. BY
libby.apr	27 JULY 2000	JLC



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600 0 600 1200 Feet

Reference: U.S. Geological Survey,
Libby and Vermiculite Mountain Quadrangles, Montana
7.5 Minute Series Topographic Maps

Figure J-2. Proposed Soil and Debris Disposal Locations Vermiculite Mine Site Libby, Montana

FILE NAME	DATE	DR. BY
libby.apr	08/18/00	JLC

Color Photo(s)

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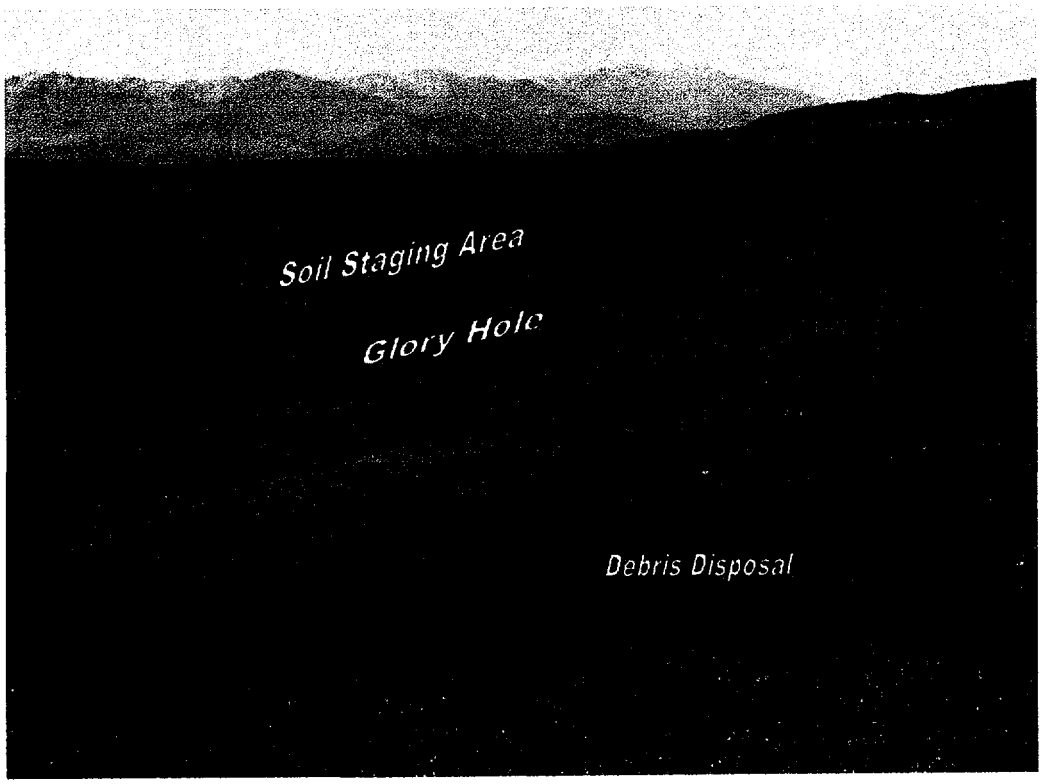

Figure J-3. View Looking West from Top of Level 12

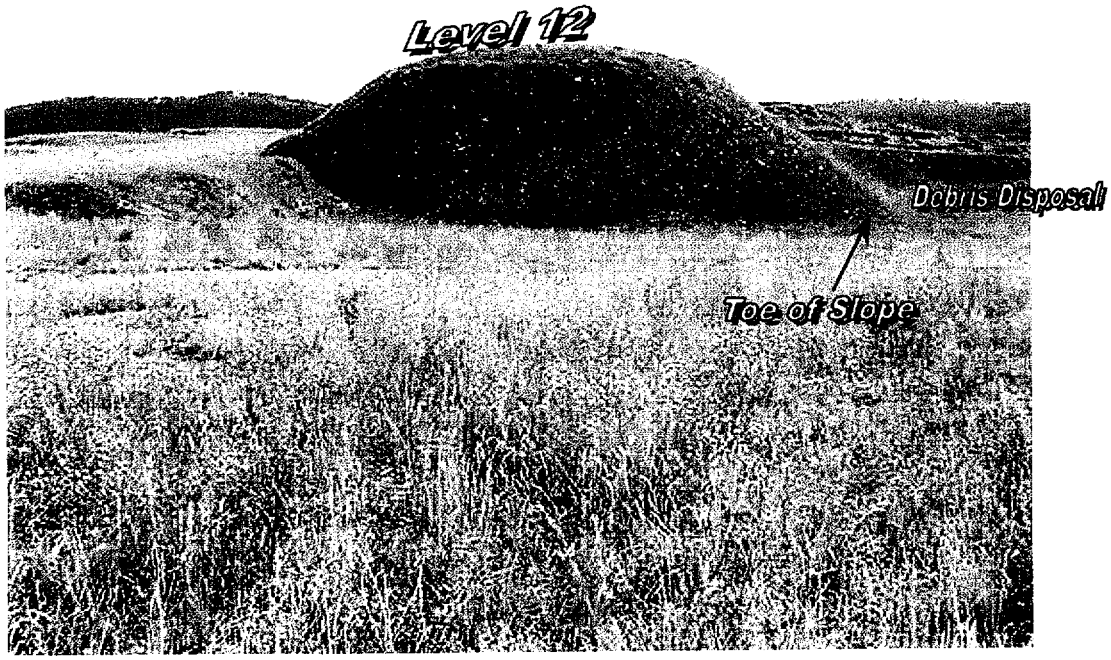

Figure J-4. View of Debris Disposal Location from Northeast

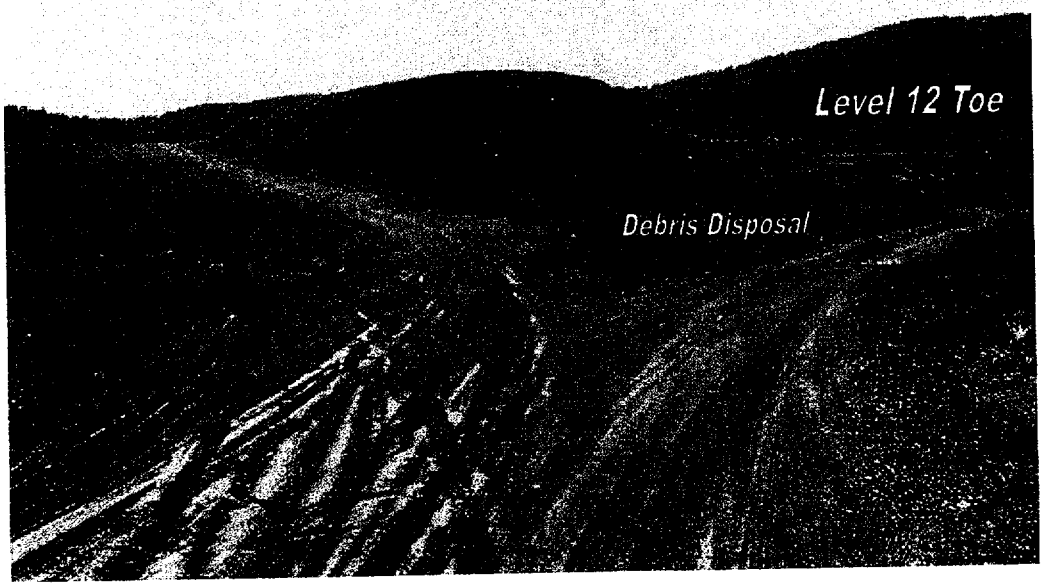

Figure J-5. View of Debris Disposal Location from East

Figure J-6. View of Glory Hole